COLORADO
DEPARTMENT OF
AGRICULTURE

Bureau of Animal Protection
Newsletter Spring 2013

Bureau of Animal Protection and the Denver Dumb Friends League Develop Courses to Help Agents and Other Law Enforcement

As most of you know, the Bureau of Animal Protection (BAP) and Colorado State University have developed our popular Equine Investigations Short Course, Levels I and II. The Bureau has now expanded educational opportunities in cooperation with the Denver Dumb Friends League to include different, but just as important, issues like search and seizure in animal cases, report writing and safe pet handling. These courses are designed for BAP agents, but we welcome and encourage all types of law enforcement to attend. These courses are approved by the Colorado Department of Agriculture and qualify for continuing education through Peace Officer Standards Training. The classes are taught by qualified people that are familiar with what animal control officers and the Bureau of Animal Protection do within the context of current laws. Instructors for the new courses include, Christa Maestas Esq., Assistant District Attorney in the 12th Judicial District, Chris Graves, POST instructor and Weld County Sheriff's Deputy and West Artope, who has 25 years of experience in sheltering, animal care, training and behavior.

We distribute course flyers electronically through the Colorado Association of Animal Control Officers, a mass e-mail distribution list through CDA. Bureau of Animal Protection agents or other law enforcement officials that are interested in taking any of our courses can contact Scot Dutcher, Chief, Bureau of Animal Protection at 303-239-4163 or scot.dutcher@state.co.us You may also contact Colorado Humane Society at info@coloradohumane.org or call, (800) 249-5121.

More courses are currently being planned, including a course that could address the needs of local law enforcement in relation to Senate Bill 226. Senate Bill 226 was recently signed into law and

requires local law enforcement to train officers in canine behavior in an effort to prevent or reduce the use of lethal force on pet dogs. Stay tuned!

BAP Reports are due!

Just a reminder that our fiscal year is coming to an end on June 30 so be sure to get your animal cruelty investigations statistics caught up and entered on our website.
http://www.colorado.gov/cs/Satellite/ag_Animals/CBON/1251619863540
The CDA will compile the statistics and provide an annual report on the total number of cruelty investigations conducted in Colorado by species.

Fundamental Feed Facts…

GUARANTEED ANALYSIS	
Crude Protein (minimum)	24.0%
Crude Fat (minimum)	20.0%
Crude Fiber (maximum)	5.8%
Moisture (maximum)	11.0%
Omega 6 Essential Fatty Acids* (minimum)	4.2%
Omega 3 Essential Fatty Acids* (minimum)	0.62%

It is helpful for animal cruelty investigators to have a basic understanding of nutrition. After all, most of the neglect investigations involve nutrition deficiency. In this edition we will talk about two common terms you will see in the guaranteed analysis on a bag of pet food or in a nutrient analysis. The following discussion will give the reader a basic understanding of how Crude Protein and Crude Fat are measured in a given feed sample.

- **Crude Protein (CP)** – Proteins contain an average of 16% nitrogen (N). Knowing this, we can calculate the amount of protein in a known amount of feed by measuring the amount of N in a particular feed sample. It is important to know the protein content of feed because this is the most nutrient dense part of the feed. Quality of protein matters, the higher the quality the smaller the amount needed by the animal. Protein is nutrient dense and is needed by an animal to support many body functions. Some animals, like ruminants, can produce protein from building blocks in the feed. A ruminant can use nitrogen as a building block and the bacteria in the rumen produce protein for use by the animal. Dogs, cats and horses need to have good quality protein in their diet because they cannot produce their own.

Good hay Bad, moldy hay

- **Crude Fat (CF)** is determined by dissolving soluble fats in a given feed sample with ether; it may also be called ether extract but is usually reflected on a guaranteed analysis or feed analysis as Crude Fat. Crude Fat may contain other ether soluble materials like some vitamins, carotene, chlorophyll, waxes, and so on. These "other" soluble materials constitute only a minor percentage of the feed sample, thus having little effect on the total percentage of true fats.

  CF is important because it provides a long lasting energy source for the animal. This is useful and necessary for animals to stay warm during cold winters and to provide a needed source of energy for animals that are in heavy work or lactating. Without a source of energy from fat the animal will use their own muscle stores to produce heat and energy.

By understanding a little more about these figures investigators can start putting pieces of the nutritional puzzle together because we know what the animal's nutrition requirements are, we know (or are able to find) the percent crude protein and fat and we should know about how much the owner claims to feed. We can get an indication of whether the owner is truthful or not by doing simple math.

Using the example of a thin 7 year old gelding with a knowledgeable owner (it could be a dog, cat or cow for that matter). If the owner claims to feed one third of a bale per day, which equates to 15 pounds or 1.5% of its body weight, and the hay is 20.8% CP according to the nutrient analysis the owner proudly provides you. According to the owner, the horse is getting 3.12 lbs. of protein per day (15 lbs. hay x 20.8% = 3.12 lbs. CP). The CP requirement for that type of horse is only about 1.39 lbs./day. What does that mean? If the owner is truthful, it could mean there is something medically wrong with the horse. It could also mean the owner is not in fact feeding what he says he is; perhaps in an effort to stretch that good quality, expensive hay a bit too far… perhaps only providing an average of 5 pounds per day which, in reality would provide the horse with 1.04 lbs. CP/day. The horse is certainly getting some protein but may not be getting what it requires. Over time that has a negative effect on the horse's health. At that point we can get a veterinarian involved to actually diagnose the reason for the horse's thin condition and at the same time do a good job of working with the owner to find out exactly why the horse appears to be thin and help the horse get the care it needs whether it is adequate feed or medical care.

The true cost of hay…

The first cutting of alfalfa is on the way, and people should be smart about how they buy hay so they know exactly what they are getting; in some cases buying the cheaper hay costs more money in the long run. The story below is written about cattle on Bermuda hay but it applies equally to horses or other species that utilize roughage for the biggest share of feed intake.

The 'Two-Bale Tale' or how being cheap can cost more

University of Arkansas Division of Agriculture | Drovers Cattle Network

BENTONVILLE, Ark. – I could detect a note of relief when Uncle Ray called me in early November, "By golly, I finally got a load of hay on its way here from out-of-state!"

Uncle Ray has a fairly small number of cows and seldom needed much hay, which prompted me to ask, "Couldn't your local source fill the bill?" His reply was one commonly voiced, "Yeah, early on he said he'd take care of me, but as the drought got worse, his hay went up to $75 a bale and I can't pay that!"

After the first blast of cold weather hit Uncle Ray called, "When you get down my way, can you sample this hay for me?" Admittedly, I wanted to see his "out-of-state" hay because I had already eyeballed some shipped into my neck of the woods. In addition, I wanted to see the neighbor's hay if possible.

When I drove up, the first red flag was a hay ring half full of "stuff" that Uncle Ray's cows apparently refused to eat. The sample I cored from his stored bales provided the second red flag. I hinted that we should visit the neighbor who, after Uncle Ray introduced me, was more than glad to show us his hay. Upon entering the barn I immediately detected the fragrance of hay that had been cut, baled and stored as it should be. I'm openly biased toward Bermuda hay, and that's exactly what this fellow had, although he noted, as have most producers, "Sure didn't get the yield I normally do," thanks to a persistent drought.

After mentioning that he hadn't, but would like to sample the hay, I pulled out my 18-volt cordless drill and Pennsylvania hay probe. In just a matter of minutes Uncle Ray was sifting his fingers through the sample bag while feeling a little dejected about his November decision.

Later, the two hay analysis confirmed what our nose, texture and visual appraisals suggested. The "as-is" crude protein and TDN, or total digestible nutrient, levels of Uncle Ray's bargain hay were 5.4 and 46 percent, respectively. The neighbors hay showed "as-is" crude protein and TDN levels of 18.3 and 61.6, respectively. In addition, based on Uncle Ray's trucking invoice, his bales

weighed about 1,000 pounds with a final cost of $65 per bale, or $130 per ton. The neighbor's hay, priced at $75 per 1,100-pound bale, would have cost $136 per ton.

The kicker, which few producers calculate, is the cost of usable forage! I guesstimated Uncle Ray's hay at being 50 percent consumable, based on hay ring waste, and the neighbor's hay at an 80 percent rate. That elevates the usable forage cost to $260 per ton for Uncle Ray's hay and $170 per ton for the neighbor's hay. The math may confuse some, as it did Uncle Ray, who was already fuming after mentally adding in the cost of supplementation he needed to purchase.

During drought years, not everyone will have access to a source of good hay, but as this neighbor noted, "If I had known there would be a strong local market, a bump in my early season fertilizer rate would have helped generate a few more bales."

Unlike grain and livestock markets, hay producers have no market opportunity to hedge. As a result they limit expenditures to satisfy a comfort zone developed through experience. High fertilizer prices and drought patterns have served to reduce total production expenditures, as well as the comfort zone.

The theme of a popular James Garner western, "Support Your Local Sheriff" easily fits hay production and marketing. One suggestion is for potential hay customers to develop a working relationship with local producers throughout the year. The second suggestion is to insist on a hay sample analysis before making a purchase, regardless of its source.

Ideas for the newsletter?

Please let us know if there is any topic or situation you would like to see in the BAP newsletter! Send ideas to scot.dutcher@state.co.us

Colorado Hay Market Report:

Hay prices still high in many parts of the state despite higher supplies being around the corner; small squares for example are $12 - $14/bale in the NE part of the state.
http://www.ams.usda.gov/mnreports/gl_gr310.txt

To learn more about the Bureau of Animal Protection and access more resources visit

http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1175705256252